



RULES FOR THE CONDUCT OF DUTCH NATIONAL AEROBATIC CHAMPIONSHIPS



DUTCH AEROBATIC ASSOCIATION

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PREFACE

The aim of these rules is to make clear to everyone, competitors, contest officials and the general public, every aspect of aerobatic contests. VINK points out that the goal of aerobatic contests is to promote friendly rivalry and good sportsmanship.

Board of VINK



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1. GENERAL RULES FOR DUTCH AEROBATIC EVENTS

1.1. Aims of Aerobatic Championships

- 1.1.1.1. To establish the champion in the various classes.
- 1.1.1.2. Where practicable, to give the general public the opportunity to watch and learn about contest aerobatics.
- 1.1.1.3. To promote the sporting skill of aerobatic pilots in the Netherlands and to allow aerobatic pilots the maximum opportunity to demonstrate, within the rules of this document, their ability in competition with others.
- 1.1.1.4. To promote and popularize aerobatics in the Netherlands and to develop and foster friendly relations between aerobatic pilots of the Netherlands and other countries.
- 1.1.1.5. In pursuance of these aims:
 - a) Fairness and equal treatment shall be ensured by all stakeholders in all VINK activities and contests, from registration to final results.
 - b) In case of dispute over the interpretation and application of these rules, and any other regulations for the conduct of aerobatic championships and competitions, a competitor shall be entitled to the benefit of reasonable doubt.

1.2. General Regulations

1.2.1. Contest Scopes

- 1.2.1.1. Dutch Open National Aerobatic Championship (DONAC)
 - a) The Dutch Open National Aerobatic Championship will be held not more than once every year.
 - b) Organizational conditions such as time, place, entry forms, entry deadline, etc. shall be made public not later than 6 months before the start of the contest.
 - c) English shall be the working language both orally and in writing for all purposes for the duration of the championship.
- 1.2.1.2. Dutch National Aerobatic Championships
 - a) The number of Dutch National Aerobatic Championships each year is not limited.
 - b) Organizational conditions such as time, place, entry forms, entry deadline, etc. shall be made public not later than 2 months before the start of the contest.
 - c) Dutch or English, at the discretion of the organizers, shall be the working language both orally and in writing for all purposes for the duration of the championship.

1.2.2. Contest Categories

- 1.2.2.1. In principle, all flights carried out by competitors must be made solo; this applies to competition flights and training flights. Flights with a safety pilot are allowed in accordance with [1.2.6.2](#).
- 1.2.2.2. Contest categories are:
 - a) Unlimited ("U").
 - b) Advanced ("A").
 - c) Intermediate ("I").
 - d) Sports ("S").
 - e) Club ("C").

1.2.3. Aircraft Restrictions

- 1.2.3.1. Aircraft qualified to enter the the classes mentioned in [1.2.2.2](#) are piston-engined and electric powered aircraft only.
- 1.2.3.2. All competing aircraft must meet the performance characteristics required for the kind of flight they will be undertaking.
- 1.2.3.3. The organizers of a Dutch National Aerobatic Championship may stipulate that entry shall be restricted to a single aircraft type, for example Pitts S-2B.



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1.2.4. Competitors Eligibility Restrictions

1.2.4.1. General

- a) All competitors must hold a valid European Aviation Safety Agency (EASA) or equivalent pilot's license and must comply with any restrictions placed on the accompanying medical certificate. These documents must be made available for inspection by the contest director or a delegated registrar at the contest venue prior to the commencement of the first contest briefing.
- b) The scores of a competitor will be disregarded when determining the final rank order of pilots in the results of a contest if, during the previous season, the competitor has:
 - i) won a contest in a higher class; or
 - ii) placed second in a contest in a higher class, in which there were six or more competitors; or
 - iii) placed third in a contest in a higher class, in which there were nine or more competitors.

1.2.4.2. Classes "C" and "S"

- a) Entry into classes "C" and "S" is not restricted. It is the responsibility of each individual pilot to ensure that he/she is capable of safely flying the programs.
- b) Once a pilot has entered a Sports class contest, he/she shall not again be eligible to enter a Club event.

1.2.4.3. Classes "I", "A" and "U"

- a) Entry is restricted to pilots who have competed in the respective class during the previous aerobatic season; or
- b) to pilots who have won in the class directly below the respective class during the previous aerobatic season; or
- c) to pilots who have scored at least 70% of the maximum possible score in the class directly below the respective class during the previous aerobatic season; or
- d) to pilots who have demonstrated to a check pilot their ability to safely fly program 1 of the respective class and any additional figures required by the check pilot.

1.2.5. Minimum Number of Competitors

1.2.5.1. Dutch Open National Aerobatic Championship (DONAC)

- a) A valid contest in each class requires a minimum of three Dutch national competitors.
- b) In circumstances where only 2 Dutch national competitors have registered for a particular class, the VINK board will decide if this constitutes a valid contest not later than 1 day after the closing date for entries.
- c) The VINK board reserves the right to reduce the number of pilots in any class. This decision will be made public not later than 1 day after the closing date for entries. The VINK board will give preference to Dutch national competitors and secondly will give preference on first come, first serve basis.

1.2.5.2. Dutch National Aerobatic Championships

- a) A valid contest in each class requires a minimum of two entrants.
- b) The organizers will determine if the contest is open to foreign pilots.
- c) The organizer reserves the right, without reference to VINK, to reduce the number of pilots in any class. This decision will be made public not later than 1 day after the closing date for entries. The organizer will establish rules for giving preference to entrants.



1.2.6. Competitors

- 1.2.6.1. At the discretion of the contest director, a pilot qualified according [1.2.4](#) may fly a program accompanied by a safety pilot. In this situation, the following conditions shall apply:
- The participating pilot shall be considered Hors- Concourse. Such pilots must declare their status at the briefing prior to flying.
 - The safety pilot must be qualified according [1.2.4](#).
 - The safety pilot shall not be a competitor in the same class at the same contest.
 - Pilots accompanied by a safety pilot shall normally fly last in each relevant program, unless the multiple use of an aircraft renders an alternative order of flight more efficacious.
 - The participating pilot's scores will be included in the statistical analysis process and in the final standings. In published listings, "H/C" shall be annotated next to their names and they will not be included in the ranking positions.

1.2.7. Aircraft Documentation

- 1.2.7.1. A valid aerobatic certificate of airworthiness or equivalent document issued by the competent aviation authority of the aircraft's state of registration must be produced to the organizer for every contest aircraft.
- 1.2.7.2. Aircraft will not be admitted to the contest unless the appropriate documentation has been submitted to the organizer.

1.2.8. Air Safety

- 1.2.8.1. The primary consideration in all aerobatic contests is safety.
- 1.2.8.2. All personnel, whether contestants or not, are required to act in the safest possible manner during the running of aerobatic contests.
- 1.2.8.3. All competitors must observe and adhere to the regulations currently in force in the Netherlands for air safety as well as the special regulations in force at the contest aerodrome.
- 1.2.8.4. Any action by a contestant or official, whether in the air or on the ground, that is detrimental to the principle of safety may endanger the continuation of the contest and bring the Dutch Aerobatic Association (VINK) into disrepute.
- 1.2.8.5. The responsibility for seeing and avoiding other air traffic rests entirely with the pilot at all times.
- 1.2.8.6. Any violation of the safety regulations in force may at any time render the offender liable to exclusion from the contest. No responsibility will be undertaken by the organizer for any such violation by competitors or others.
- 1.2.8.7. To enable the pilot to watch over his or her own safety, an accelerometer must be installed in each competing aircraft.
- 1.2.8.8. The chief judge may exclude a pilot who is not flying safely or whose flying might reasonably be judged to be the imminent cause of an unsafe situation.
- 1.2.8.9. Any competitor required to interrupt a competition flight due to danger of collision with conflicting air traffic or a bird, should be treated in the same manner as if a mechanical defect ([paragraph 3.12.2](#)) had taken place.

1.2.9. Insurance

- 1.2.9.1. All competitors must produce evidence of adequate third party insurance valid for the duration of the contest and valid in the Netherlands.



1.3. Contest Bodies

1.3.1. Jury

1.3.1.1. The jury is the supreme arbitration body of aerobatic events. The duties of the jury include:

- a) Interpreting the general rules, the judging rules and the general regulations of the contests.
- b) Meetings:
 - i) Attending the meetings of the board of judges (dealing with familiarization, evaluation, checking the marking sheets).
 - ii) If required, holding daily evaluation meetings (after the daily contest program has been completed).
 - iii) Final meeting of the jury. Evaluation of the activities of the jury and of the development of the contest and a preliminary assessment of the experience gained during the contest.
- c) Supervision:
 - i) Overseeing the administration of the contest.
 - ii) Supervising the briefings and the drawing of lots to determine the order of flying.
 - iii) Supervising the board of judges. This is primarily conducted by the chief judge.
 - iv) Supervising the activities of the scorer.
 - v) Checking the publication of contest results.
 - vi) Checking the availability and accuracy of medals and trophies at the beginning of the competition.
 - vii) Controlling the unknown programs in accordance with [2.5](#); including supervision, composition, and explanation, as appropriate.

1.3.1.2. Mediation:

- a) Dealing with protests from competitors. Taking down on record the proceedings in meetings or activities where decisions are sought (e.g. a note of comments, resolutions, etc). The jury will publish the results of all protests and decisions. The meetings of the jury must not impede the progress of the contest.
- b) Explanatory discussions with competitors to explain measures taken by the jury; interpretation of these rules and all regulations. This should be done after completion of the daily competition program or before the beginning of competition flying (i.e. in any case without impeding the progress of the contest).

1.3.1.3. Organizer's responsibility:

- a) The organizer of aerobatic events must provide the necessary material and technical conditions, and the required number of staff, in order to enable the jury to carry out its functions.

1.3.1.4. Composition of the jury:

- a) The contest director and the chief judge.
- b) A third person, who is not biased, appointed by the contest director (e.g. a qualified mechanic).

1.3.1.5. All members of the jury must be available to hear appeals or protests submitted by competitors.

1.3.1.6. Any decision taken by the jury by majority vote shall be final.

1.3.1.7. The jury may temporarily vary any rules approved by the Dutch Aerobatic Association (VINK) during a contest under the following circumstances:

- a) There is an absolute majority within the jury, when conducting a vote to introduce a temporary variation to the regulations, and;
- b) There is a two-thirds majority amongst the participating competitors, when conducting a vote to introduce a temporary variation to the regulations.



1.3.2. Board of Judges

Judging during Aerobatic Championships will be carried out by a board of judges in compliance with the following rules.

1.3.2.1. Composition of the board of judges:

- a) The chief judge.
- b) Two chief judge assistants.
- c) Two additional judges. At a beginners event no or one additional judge shall suffice.
- d) Judge assistants to assist each additional judge.
- e) Boundary judges if used.

1.3.2.2. Appointment:

- a) The chief judge and additional judges for the Dutch Open National Aerobatic Championship are appointed by the board of VINK.
- b) The chief judge and additional judges for a Dutch National Aerobatic Championship are appointed by the organizer of the contest.
- c) Judge assistants including the chief judge assistants and boundary judges (if used) are appointed by the contest director.

1.3.2.3. Qualification of judges:

- a) In the year in which the championship is held or during the previous calendar year, the judge must have either judged or competed at a national or international aerobatic championship at the appropriate class or a higher class.
- b) For judges, other than the chief judge rule a) can also be satisfied if the judge has followed a judging course approved by VINK. For Advanced and Unlimited it is additionally required that the judge has judged or competed in the class immediately below and has been made thoroughly aware of the additional figures to be expected. This is preferably done by judge training on actual flights and/or video footage.
- c) The chief judge will insure that the judge is in possession of current regulations with appropriate translation if necessary.
- d) The jury shall have the authority to disqualify any judge from the championship if it determines that the judge is continuously biased or not competent. This decision will be final and cannot be protested or appealed.

1.3.2.4. Time keeping:

- a) Programs will not be timed.

1.3.2.5. Position of judges:

- a) The judges (under [1.3.2](#) except boundary judges) will be posted by the chief judge at positions appropriate for observing the competitors, the positions of the judges being at least 15 m apart. The distance of the positions of the judges from the end point of the secondary axis will be a minimum of 150 m and a maximum of 250 m.

1.3.2.6. Role of judges:

- a) The judges appointed for marking the quality of the maneuvers will mark the maneuvers and infringements of the lower and upper height limits, interruptions and insertions in compliance with the judging rules ([4](#)).

1.3.2.7. Role of the judges assistants:

- a) The assistant(s) has (have) the following tasks:
 - i) Telling the judge prior to the performance the sequence of the figures, details of the various figures, and any other special features.
 - ii) Recording the mark given by the judge for each figure and writing down into the marking sheet any remarks concerning the rating. Any amendment of record must be signed by the judge.
 - iii) Giving general assistance.



1.4. Administrative Arrangements

1.4.1. Entries

- 1.4.1.1. The Dutch Open National Aerobatic Championship (DONAC) is open to national (pilots holding a valid Dutch passport or identity card) and foreign pilots.
- 1.4.1.2. Dutch National Aerobatic Championships are open to pilots holding a valid Dutch passport or identity card. According to rule [1.2.5.2.b](#) the organizer may stipulate that the contest is open to foreign pilots.

1.4.2. Entry Fees

- 1.4.2.1. Entry fees are only to be paid by competitors.
- 1.4.2.2. Entry fees will be fixed by the organizer in agreement with the board of VINK.

1.4.3. General Briefing and Judging Meetings

- 1.4.3.1. Prior to the start of a contest there will be a briefing by the organizer for competitors and judges, on flight conditions, the contest programs, and any other problems which might arise over the interpretation of the rules.
- 1.4.3.2. For familiarization with and a standardized interpretation of the judging rules the chief judge will hold seminars with the judges. The chief judge will give guidance to the judges as to the current judging criteria and rules for judging, on which he should conduct 'question and answer' sessions. Throughout the duration of the contest the chief judge will hold routine evaluation meetings with the judges.

1.5. Final Regulations

1.5.1. Competitor's Pledge

- 1.5.1.1. By sending in the entry form the contestant agrees to be bound by all the rules of the Dutch Aerobatic Association (VINK) that relate to aerobatic contests. It is the responsibility of the pilot to ensure that he/she is aware of such rules and regulations.

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2. PROGRAMS OF NATIONAL AEROBATIC CHAMPIONSHIPS

2.1. Flight Program Schedule

2.1.1. Flight Programs List

2.1.1.1. Class "C"

Each competitor will present 2 programs:

- a) Program 1: The Known Program.
- b) Program 2: The Known Program.

2.1.1.1. Class "S"

Each competitor will present 2 programs:

- a) Program 1: The Known Program.
- b) Program 2: The Known Program or, if all competing pilots in this class are, in the judgement of the jury, capable of safely flying an unknown program: The Unknown Program.

2.1.1.2. Class "I"

- a) Program 1: The Free Known Program.
- b) Program 2: The First Free Unknown Program.
- c) Program 3: The Second Free Unknown Program.

2.1.1.3. Class "A"

- a) Program 1: The Free Known Program.
- b) Program 2: The First Free Unknown Program.
- c) Program 3: The Second Free Unknown Program.
- d) Program 4: The Third Free Unknown Program.

2.1.1.4. Class "U"

- a) Program 1: The Free Known Program.
- b) Program 2: The First Free Unknown Program.
- c) Program 3: The Second Free Unknown Program.
- d) Program 4: The Third Free Unknown Program.
- e) Program 5: The Final Freestyle Program.

2.1.2. General Regulations on Flight Programs Schedule

2.1.2.1. After the (Free) Known Program (program 1), no pilot shall continue in the competition unless the pilot is, in the judgement of the jury and board of judges, capable of safely flying the remaining programs. Any pilot disqualified under this rule will be so informed by the jury before the start of program 2.

2.1.2.2. In Unlimited, program 5 shall have priority over program 4. Thus, if weather forecasts indicate that all program's may not be completed before the end of the contest period, the organizer, in consultation with the jury, shall direct that program 5 be flown before program 4.



2.2. The Known Program

2.2.1. General

2.2.1.1. Sequences will be composed of figures or combinations of figures (a combination being taken as one figure) selected from the Aresti System (Condensed).

2.2.2. Class "C"

2.2.2.1. A minimum of 4 and a maximum of 6 figures.

2.2.2.2. The total difficulty coefficient of all figures of the known program shall not exceed 70 K.

2.2.2.3. The start and finish of a program must be carried out in normal level flight. Competitors may begin and finish their program at any height between the upper and lower limits given in [3.8](#).

2.2.2.4. In a given sequence, a catalogue reference number may be used only once.

2.2.2.5. The figures and the composition of the sequence must be such as to enable competitors to fly all figures safely in the aircraft available to them, provided that the aircraft meet the requirements of normal technical standards.

2.2.3. Class "S"

2.2.3.1. A minimum of 9 and a maximum of 11 figures.

2.2.3.2. The total difficulty coefficient of all figures of the known program shall be a minimum of 100 K and not exceed 125 K.

2.2.3.3. The start and finish of the a program must be carried out in normal level flight. Competitors may begin and finish their program at any height between the upper and lower limits given in [3.8](#).

2.2.3.4. In a given sequence, a catalogue reference number may be used only once.

2.2.3.5. The figures and the composition of the sequence must be such as to enable competitors to fly all figures safely in the aircraft available to them, provided that the aircraft meet the requirements of normal technical standards.

2.3. The Unknown Program

2.3.1. Class "S"

2.3.1.1. Sequences will be composed of figures or combinations of figures (a combination being taken as one figure) selected from the following list:

- a) Figure 1.1.1.1 obligatorily complemented with;
figure 9.1.3.4 or
figure 9.2.3.4 or
figure 9.4.3.4.
- b) Figure 1.1.2.1.
- c) Figure 1.1.2.3.
- d) Figure 1.1.6.3 obligatorily complemented with;
figure 9.11.1.4 or
figure 9.11.1.5 or
figure 9.11.1.6.
- e) Figure 1.2.3.1 obligatorily complemented with;
figure 9.1.2.2.
- f) Figure 1.2.6.3 obligatorily complemented with;
figure 9.11.1.4 or
figure 9.11.1.6.
- g) Figure 2.1.1.1.
- h) Figure 2.2.1.1.
- i) Figure 2.3.1.1
- j) Figure 5.2.1.1 optionally complemented with;
figure 9.1.5.1.



- k) Figure 7.2.2.1 obligatorily complemented with;
figure 9.1.3.2.
- l) Figure 7.2.3.3 obligatorily complemented with;
figure 9.1.3.2.
- m) Figure 7.3.2.1 obligatorily complemented with;
figure 9.1.2.2.
- n) Figure 7.3.3.3 obligatorily complemented with;
figure 9.1.4.2.
- o) Figure 7.4.1.1.
- p) Figure 7.5.5.3 obligatorily complemented with;
figure 9.1.3.2 and figure 9.1.2.2.
- q) Figure 7.5.7.1 obligatorily complemented with;
figure 9.1.3.2 and 9.1.4.2.
- r) Figure 8.4.1.1.
- s) Figure 8.5.2.1 obligatorily complemented with;
figure 9.1.2.2 and optionally complemented with;
figure 9.1.3.4 or
figure 9.2.3.4.
- t) Figure 8.5.3.3 obligatorily complemented with;
figure 9.1.3.2.
- u) Figure 8.5.6.1 obligatorily complemented with;
figure 9.1.4.2.
- v) Figure 8.5.7.3 obligatorily complemented with;
figure 9.1.3.2.
- w) Figure 8.6.4.3 obligatorily complemented with;
figure 9.11.1.4 or 9.11.1.6 and
figure 9.1.3.2.
- x) Figure 8.6.5.1 optionally complemented with;
figure 9.1.3.4.
- y) Figure 8.7.5.1 optionally complemented with;
figure 9.1.3.4.

2.3.1.2. A minimum of 9 and a maximum of 11 figures.

2.3.1.3. The total difficulty coefficient of all figures of the known program shall be a minimum of 100 K and not exceed 125 K.

2.3.1.4. The start and finish of the a program must be carried out in normal level flight. Competitors may begin and finish their program at any height between the upper and lower limits given in [3.8](#).

2.3.1.5. In a given sequence, a catalogue reference number may be used only once.

2.3.1.6. The figures and the composition of the sequence must be such as to enable competitors to fly all figures safely in the aircraft available to them, provided that the aircraft meet the requirements of normal technical standards.



2.4. The Free Known Program

2.4.1. General

- 2.4.1.1. Sequences will be composed of figures or combinations of figures (a combination being taken as one figure) selected from the Aresti System (Condensed).
- 2.4.1.2. Any figure or combination of figures which is selected must bear the catalogue reference number(s) and the difficulty coefficient(s) (K) stated in the Aresti System (Condensed) as currently amended by CIVA. The numbers and coefficients in the Aresti System (Condensed) will be taken as definitive.

2.4.2. Classes “I”, “A” and “U”

- 2.4.2.1. Five (5) figures from a known ‘master set’ selected by the board of VINK each year for each category, used in any order and at any position in the sequence with their start direction into-wind, down-wind or cross-wind in either direction as desired, with their design unchanged;
- 2.4.2.2. Plus five (5) free figures that each competitor must add, in order to design a sequence of ten (10) figures that satisfies regulations below.
- 2.4.2.3. The selected known ‘master set’ must be such as to enable competitors to fly all figures safely in the aircraft available to them, provided that the aircraft meet the requirements of normal technical standards.
- 2.4.2.4. The selected known ‘master set’ must be such as to enable design of sequences that satisfy the non-repetition requirement in [2.4.2.7](#) and versatility requirements in [2.4.2.8](#).
- 2.4.2.5. The total difficulty coefficient of all figures of Free Known sequences shall not exceed the limits given in the table below.

Class	Maximum total K
Unlimited	450
Advanced	320
Intermediate	200

- 2.4.2.6. The start and finish of program 1 must be carried out in normal or inverted level flight. Competitors may begin and finish their program at any height between the upper and lower limits given in [3.8](#).
- 2.4.2.7. In a given sequence, a catalogue reference number may be used only once.

2.4.2.8. In order to achieve versatility in the design of program 1, it is a mandatory requirement that sequences include the following figures. Sequences not including these figures will not be accepted

Family	Intermediate	Advanced	Unlimited
1	Not required	At least one figure	
2	At least one from either 2.1.2 to 2.1.3, or 2.2.2 to 2.2.7, or 2.3.2 to 2.3.6, or 2.4.2 to 2.4.8		At least one from either 2.2.3 to 2.2.7, or 2.3.2 to 2.3.6, or 2.4.2 to 2.4.8
5	At least one figure		
6	Not required		At least one figure
7	At least one figure		
8	At least one figure		
9.1 to 9.8	At least one from each sub-family		Not specified
9.9 & 9.10	At least one figure	At least two, no sub-family specified	At least two from each sub-family
9.11 & 9.12	At least one from either		
Opposite rolls	At least one instance with elements from Families 9.1 to 9.10		

2.4.2.9. Sequence Submission

- a) As directed in the event bulletin or at the latest by the time of registration on site, each competitor must submit a computer file for the program to the contest director, for verification of compliance with the relevant rules. Hard copies alone, or hand drawings will not be accepted. The computer file must contain completed pages for the five forms described below, in a format declared acceptable by the organizer. It is the competitor's responsibility to ensure the software used has been updated to comply with the Aresti System (Condensed) and these regulations. If any pilot submits their free known sequence after the registration deadline, they will not be allowed to take part in program 1.
- b) Form 'A' will show all symbols, catalogue reference numbers and difficulty coefficients.
- c) Form 'B' will show the continuous sequence of the program as it would be flown with the wind blowing from right to left, plus a table listing the figure numbers, their catalogue numbers and coefficients. Form B will also show identification of the five compulsory known figures with the same designation (A-E) as in the official 'master set'.
- d) Form 'C' will show the continuous sequence of the program as it would be flown with the wind blowing from left to right.
- e) Form 'R' will combine in one page Forms A and B.
- f) Form 'L' will combine in one page Forms A and C.
- g) Forms B, C, R and L must carry the correct symbol for the wind direction.
- h) The forms will include the conventional symbols, catalogue numbers and coefficients only. No account will be taken of any other writing or notation.



- 2.4.2.10. Checking
- a) It shall be the duty of the contest officials to check each competitor's sequence validity.
 - b) Correct use of the known 'master set', non-repetition and versatility requirements.
 - c) Catalogue reference numbers and difficulty coefficients on form A (respectively R and L) with respect to the symbols on forms B and C (respectively R and L), taking the reference numbers in the Aresti System (Condensed) as the basic criteria for deciding compliance with the rules of this section.
 - d) The final responsibility for the correctness and compatibility of forms A, B, C, R and L lies with the competitor. Any inaccuracies in the drawing of symbols or in the quoting of coefficients, or the discovery of any cases of repetition of figures, will be referred to the competitor so that the forms may be corrected and resubmitted.
 - e) The contest officials referred to in this rule are those of the organizer.
 - f) In order to avoid possible alteration and resubmission of forms during the contest, competitors may, if they wish, submit their computer files to the organizer for checking not more than one month before the beginning of the contest.
 - g) The organizer shall ensure that forms A, B, C, R and L are signed by each competitor at time of registration. The organizer will provide hard copies to each competitor for signature, and those signed hard copies will be the ones used by the organizer for reproduction according to [2.4.2.13](#).
- 2.4.2.11. Should a competitor disagree with a decision of the contest officials concerning his or her program 1, a complaint may be put to the jury before flying commences in program 1. The approved programs of all competitors will be published before the start of program 1, in sufficient time for complaints and protests to be made. Once the flying of program 1 has started, no complaints of any kind will be accepted by the jury on any aspect of the composition of a competitor's program.
- 2.4.2.12. Each judge will communicate to the chief judge which of both form types (A/B/C or R/L) he/she wants to use. The chief judge shall then give the consolidated form type list to the organizer for sorting out the judging line paperwork. This requirement is valid for all programs where such forms are used.
- 2.4.2.13. The organizer will be responsible for reproducing a sufficient number of copies of competitors' programs to meet the requirements of the contest. One set of copies of program 1 (forms B and C only) shall be provided to each judge prior to the start of this program. The relevant set (A/B/C or R/L) shall be delivered to each judge for scoring operations according to [2.4.2.12](#).
- 2.4.2.14. Notwithstanding paragraph [2.4.2.10.b](#), the judges shall only take into account what is actually shown on the relevant form B or form C (respectively form R or L), depending on the official wind direction. The figures drawn on this form, their orientation with reference to wind and box axes, shall be definitive. Corrections may be made to forms B, C, R, L, via the contest organization, and presented to the chief judge at any time prior to the flight commencing.



2.5. The Free Unknown Programs

2.5.1.1. For the free unknown programs, figures will be chosen from FAI Sporting Code, Section 6 Part 1 Powered Aircraft Appendix A. A maximum of 10 figures may be submitted. Each competitor (except Hors Concours) may submit one or more figures. Repetition of any maneuver with the same catalogue number is not allowed within any one program. Repetition of a complete figure from program 2 is not allowed in program 3, and repetition of a complete figure from program's 2 and 3 is not allowed in program 4. The intent of this regulation is that sequences for program's 2, 3 and 4 will be different. Maximum and minimum K for each program are as follows:

Category	Program	Figure minimum K	Figure maximum K
Intermediate	2	12	20
	3	12	25
	4	12	30
Advanced	2	15	30
	3	15	35
	4	15	40
Unlimited	2	22	No limit
	3	22	No limit
	4	22	No limit

2.5.1.2. If there are more than 10 pilots competing in a class, the competitors who may submit a figure are determined by the drawing of lots.

2.5.1.3. With 6, 7, 8 or 9 pilots competing in a class, each pilot may submit one figure. With 4 or 5 pilots competing in a class, each pilot may submit 2 figures. With 3 pilots competing in a class, each pilot may submit 3 figures. With 2 pilots competing in a class, each pilot may submit 5 figures. The jury will select additional figures if needed to reach a total of 10 figures.

2.5.1.4. Sequences for programs 2, 3 and 4 (class “I”, “A” and “U”) are to be composed using the 10 officially approved figures submitted by the competitors, and additional figures from the Aresti System (Condensed) as currently amended by CIVA, solely to aid in composition. These additional figures may contain repetitions despite rule [2.5.1.1](#).

a) In the nomination of figures there will be a limit on the number of figures selected from the following:

Family	Intermediate	Advanced	Unlimited
1.1.6 - 1.1.11			Max. of two from columns 3 and 4
1.2.3 & 1.2.4	Max. of one only from columns 3 and 4		
7.8.1 to 7.8.8	Max. of one figure only		
8.4.1 to 8.4.4, 8.4.15 to 8.4.18, 8.5.1, 8.5.2, 8.6.1, 8.6.2			A maximum of two from columns 3 and 4
9.9	Min. 1, max. 2.	Min. 2, max. 4.	A maximum of four*
9.10	None		A maximum of four*
			* Total of Families 9.9 and 9.10 not to exceed six, at least one of which must be vertically climbing
9.11 & 9.12	A maximum of one figure		

b) There will not be more than 1 flick roll (family 9.9 or 9.10) per figure.

c) At least one additional figure, up to a maximum of four, must be included in each sequence. The K-factors for these additional figure(s) shall be modified so that they share equally an aggregate of 24K. (note: Additional figures are referred to as “linking figures” in Appendices A and in the Sporting Code document “International Aerobatic Events: Statistical Method for Processing Scores”, nevertheless they are allowed to be placed anywhere in the sequence, including as first or last figure).

d) Sequences will consist of no more than 14 figures.

e) In sequence composition, figures may be used starting from one or the other axis. Nevertheless figures with their entry and exit on the same axis must maintain their construction unchanged, i.e. with the exit flight path in the entry direction or with the direction of flight reversed as originally drawn.

2.5.1.5. The contest organizer shall provide copies of the list of figures to all competitors, and each competitor may submit to the jury a maximum of two sequences, composed of these figures, for each program. The contest organizer will determine the deadline for submitting proposed sequences.

2.5.1.6. Publication and selection of free unknown program’s

a) All proposed sequences received by the deadline must be checked, and corrected if necessary, by the jury.

b) The jury shall publish all sequences received from the competitors not later than 2 hours before the start of the program.

c) At least 1 hour before the commencement of each program each competitor will notify the organizer which of the proposed sequences he/she will fly.

d) Prior to the flight order and paperwork being issued to the judging line, competitors shall verify the correctness of the allocation of selected sequence per pilot; this verification shall be recorded by the organizer.

2.5.1.7. Training for the unknown program’s is not permitted. Competitors violating this regulation will be disqualified.



2.6. The Final Freestyle Program (Unlimited only)

- 2.6.1.1. Program 5 will be the last program flown in the competition (except as provided for in [2.1.2.2](#)). The selection of figures or figure combinations for this program need not be made with reference to the Aresti System (Condensed). There will be no limitation on the number of figures and the total difficulty coefficient.
- 2.6.1.2. The start and finish of program 5 may be in normal or inverted flight on a horizontal, ascending or descending path, which must not deviate from the horizontal by more than 45 degrees. Competitors may begin or finish their program at any height between the upper and lower limits given in rule [3.8](#).
- 2.6.1.3. There will be no submission of forms containing the sequence of figures to the contest director.
- 2.6.1.4. Smoke may be used at the option of each individual pilot.

2.7. Time between programs

- 2.7.1.1. The organizer must allow sufficient time between program's such that no competitor shall be required to fly any program less than one hour after landing from his/her previous flight.

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3. OPERATION OF NATIONAL AEROBATIC CHAMPIONSHIPS

3.1. Daily Briefing

3.1.1.1. Before the beginning of competition flying, on each competition day, a briefing will be held for competitors, officials, judges and the jury on organizational matters concerning the competition day, on meteorological conditions, etc. The briefing should last no longer than 30 minutes.

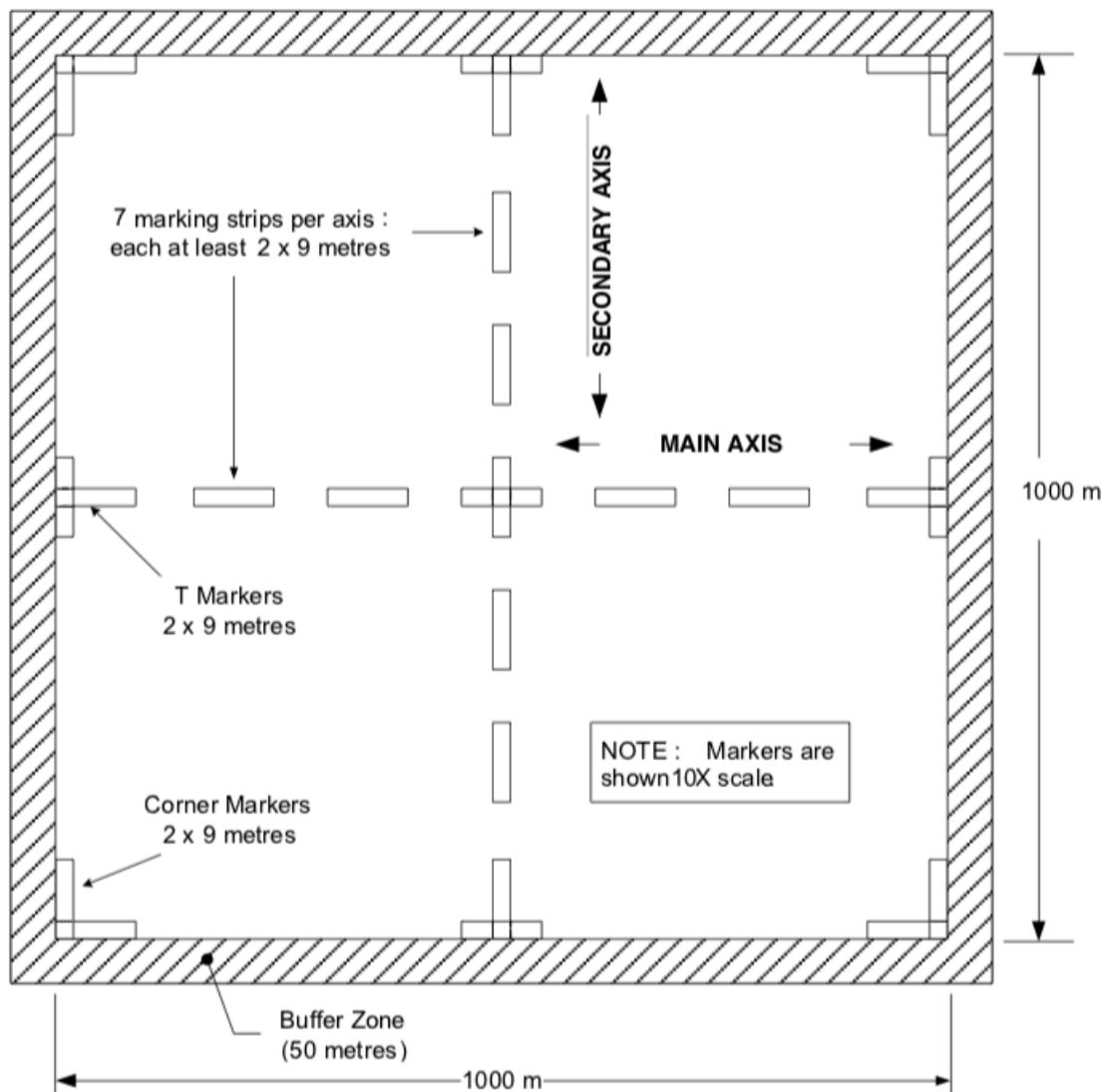
3.2. Sequence of Flights (Drawing of Lots)

3.2.1.1. The sequence of flights for all program's will be determined by drawing of lots to be arranged by the contest director or his assistant, in the presence of a representative of the jury. For all program's, each competitor will draw his or her own lot in front of attendees during the respective briefings, under supervision of the jury. In the event a competitor is not present to draw his or her own lot, the jury will do so.

3.2.1.2. H/C pilots will be considered separately in the drawing of lots. They will be grouped and flown first in each flight program (pending provision of rule [3.2.1.3](#)).

3.2.1.3. The sequence of flights may be altered by the jury if special circumstances require, e.g. when two closely-drawn pilots are to fly the same aircraft. In such a case, there must be a minimum of two flights or 15 minutes between engine shut-off and the next start-up on the same airplane. If this time period causes a gap in the continuity of flying, the starter shall inform the chief judge accordingly.

3.3. Performance Zone





- 3.3.1.1. The program's will be flown with reference to the longitudinal and lateral axes marked on the ground. The performance zone (box) must be a clearly and distinctly marked area of 1000 x 1000 meters whose central point will be the intersection of the axes, as shown in the diagram. The zone must be located adjacent to a suitable emergency landing area. Two arrows will be placed near the central point of the main axis. They indicate the specified direction of the main axis pointing into the Official Wind. The jury will determine any change of the official wind direction (hence main axis) as may be necessary, and ensure that the organizer amends the orientation of the direction arrows accordingly (see [3.7.1.2](#)).
- 3.3.1.2.
- 3.3.1.3. The longitudinal (main) and the lateral (secondary) axes shall both be marked by 7 contrasting marking strips. Only one axis system must be visible at a time. The size of these markers must be at least 2 x 9 meters, with the longer side aligned with the direction of the axis. The ends of the axes and the four corners of the box must be clearly marked and also must be at least 2 x 9 meters in size.
- 3.3.1.4. The markers must be visible from any height within the performance zone. The color of the marking strips must be in distinct contrast to the ground and other airfield markings, which should be removed if possible.
- 3.3.1.5. Marking must be complete prior to the start of program 1. Aerial pictures of the box, taken along both axes, must be distributed to the jury and competitors to determine the correctness of the box geometry and to facilitate familiarization with the physical references.
- 3.3.1.6. If the prescribed wind conditions in [3.6.2.3](#) and [3.6.2.4](#) are not fulfilled, the competition will be discontinued. The jury will determine any change of direction of the main axis as may be necessary.
- 3.3.1.7. If for practical reasons it is not possible to comply with above rules, preferably the performance zone will be partially marked or will not be marked at all. The position of the partially marked or unmarked performance zone must be briefed in the daily briefing.

3.4. Warm-Up Flights

- 3.4.1.1. The first flight of each competition day and each program may be asked to fly through the performance zone for box demarcation purposes before starting the competition sequence.
- 3.4.1.2. Prior to the first flight of each competition day and each program the pilot of this flight should seek instruction from the chief judge regarding the demands of the demarcation itself. This will normally commence with either a full or partial demarcation of the box axes and boundaries at either or both of the minimum and/or the disqualification heights.

3.5. Video/Audio Devices

- 3.5.1.1. Video cameras may be mounted in/on competition aircraft at the discretion of the pilot.
- 3.5.1.2. Radio sets are required and must be able to be tuned to the "Safety Frequency".
- 3.5.1.3. Unfair pilot aids during flight will render the competitor liable to disqualification from the contest. Such unfair aids include:
- Receiving any kind of information addressed to the competitor from anyone other than the chief judge or "Air Traffic Control".
 - Any electronic device or software other than that normally required for the safe conduct of the flight (e.g. audio information from the on-board G-meter is permitted, as well as cockpit and wing-tip sight gauges or other passive items).
- 3.5.1.4. Radios, set to the "Safety Frequency", are only for communication from the chief judge to the competing pilot for box control purposes and to serve urgent flight safety matters.
- 3.5.1.5. Failure of a competitor's radio after arrival at the contest site will not be grounds for disqualification. The contest organizer will arrange other means if possible, for the safe and orderly dispatch of these pilots.
- 3.5.1.6. The "Safety Frequency" will be selected by the organizer and given to the competitor together with the competition papers. The "Safety Frequency" will be monitored during all competition flights, and if possible, recorded on tape.

- 3.5.1.7. Once each pilot is airborne he/she is not allowed to enter the performance zone before two-way communication is established with the chief judge. The chief judge will call the competitor on the safety frequency, saying: "Number x, radio check" – or, in case of a free unknown program, "Number x, radio check and confirm sequence x". If the pilot does not receive this call, after a reasonable time and visually checking that no other aircraft is flying in the performance zone, he/she should call the chief judge on the safety frequency and state, "Number x, radio check." The chief judge must respond to this call if he hears it. If two-way communication is not established, the pilot must land immediately. The situation will then be treated as in the case of any other technical defect, in accordance with section [3.12.2](#).
- 3.5.1.8. The standard phraseology in the event that a break is required for safety reasons will be the chief judge saying "**Break, Break, Break**". If the chief judge subsequently requires the pilot to land immediately, he shall say "**Land, Land, Land**". The chief judge or his representative may address the competitor in matters concerned with safety of the competition flight as circumstances may require. A pilot who fails to comply with any of these instructions from the chief judge shall be liable to disqualification from that program.

3.6. Meteorological Conditions

- 3.6.1.1. Flights will be carried out between the hours of sunrise and sunset at the place of competition.

3.6.2. Minima

- 3.6.2.1. The minimum height of the cloud base must be 50 m above the maximum height determined for each competition flight. For the unlimited final freestyle program, the minimum height of the cloud base must be 800 m.
- 3.6.2.2. The minimum prevailing flight visibility, determined with reference to ground features from the midpoint of the contest area at the maximum height for the competition flight, must be 5 km.
- 3.6.2.3. The maximum permissible average wind speed components are:

Altitude	Direction	Maximum permissible
Surface	Any	12 m/s
	Crosswind (reference runway)	6 m/s
	Tailwind (reference runway)	3 m/s
300 m and 600 m meter	Headwind (reference box main axes)	12 m/s
	Crosswind (reference box main axes)	8 m/s
	Tailwind (reference box main axes)	3 m/s

- 3.6.2.4. In case the following conditions are fulfilled:
- The main axis component of the wind at 300 m or 600 m exceeds 12 m/s, or is close to the 12 m/s limit so that normal flight operations are expected to be significantly disturbed, at the discretion of the jury,
 - and there is a distinct risk that the contest cannot be validated under the standard wind main axis component limit rule (see above), at the discretion of the jury, then the jury may decide to extend the wind main axis component limit at 300 m or 600 m to 14 m/sec (with the cross axis component limit unchanged) with the following conditions:
 - Boundary judging is cancelled for the entire program (including for pilots having already flown under standard conditions).
 - A 20-minute notice is given when changing from the "12 m/sec mode" to the "14 m/sec mode" and vice versa.
- 3.6.2.5. Competition flights will not take place in precipitation.
- 3.6.2.6. In class "I" the maximum permitted density altitude, measured at the surface, for sequences to be flown without interruption is 3,000 feet.



3.6.3. Weather Information

3.6.3.1. The contest director must provide the official wind direction, as determined by the jury, to the competitors at the beginning of each contest day and anytime that official wind direction is changed.

3.6.4. Adverse Weather

3.6.4.1. If the meteorological conditions do not meet the requirements of [3.6.2](#), the chief judge after consultation with the jury will discontinue competition flights. Such decision may be taken:

- a) If weather conditions are determined outside of the limits by a qualified weather station.
- b) If there is information available from competitors who have just finished or discontinued a flight owing to weather conditions which, in the opinion of the pilot, were outside the prescribed limits.
- c) If the conditions are judged independently by members of the jury, the chief judge or the competitors to be outside the prescribed limits.

3.6.4.2. If the cloud is at least 800 m above aerodrome level, and if a majority of competitors agree, the jury may relax the visibility and wind limitations stated above in the interests of completing the first three competition programs before the end of the contest period.

3.6.4.3. If the weather conditions do not comply with the competition rules, a competitor may discontinue his or her flight before starting the sequence or, during the program, in level flight at the end of a figure i.e.:

- a) If during any program the horizontal visibility deteriorates to less than 5 km.
- b) If the cloud height in the performance zone is lower than the height in the following table.

Category	Break if lower than:	No flying if lower than:
Unlimited	1050 m	800 m
Advanced	1150 m	800 m
Intermediate	1250 m	950 m

- c) If precipitation becomes apparent. In this case, members of the jury should check the weather conditions in the performance area in order to reach a decision on the possible repetition of the competition flight. This applies to program's 1 to 4.
- d) If the wind exceeds the limits specified in [3.6.2](#) and if a competitor during a flight is not able to observe such changes and he or she completes the flight – i.e. if the competitor made his or her flight under conditions which were disadvantageous as compared with other competitors - this competitor is entitled to repeat the flight, except in program's 2 to 4.
- e) The marking for the repetition flight for a competitor will be continued from the figure immediately following the break.
- f) If a competitor discontinues his or her flight without sufficient reason, no repetition flight will be allowed.

3.6.4.4. No flying will take place by class "C" and "S" if cloud height is lower than 950 m.

3.6.5. Permitted Breaks

3.6.5.1. The jury may allow flights to be made in two parts, during the performance of all program's other than the Final Freestyle, if the height of the cloud base is between the heights given in the table at paragraph [3.6.4.3.b](#) or if the relevant density altitude exceeds that stated in paragraph [3.6.2.6](#). The competitor is then allowed to readjust height without penalty to commence the second part.

3.6.5.2. The pilot may choose where to take this break without stating so in advance, and such break need not be marked on forms B or C (respectively R or L). However, second or subsequent breaks will be penalized in accordance with paragraph [3.6.6](#). When an interruption occurs along the secondary axis, the competitor must resume his or her flight in the same direction of flight.

3.6.5.3. If the cloud base subsequently rises to the higher figure in the table, pilots may no longer interrupt their flight without penalty. Pilots will be advised by the contest director (or his staff), with a minimum of a 10 minute warning, following advice to him from the jury, when they are to fly with/without interruption should the weather conditions change.

3.6.5.4. Even though an interruption may be allowed without penalty by the jury, there is no obligation for pilots to interrupt their flight.

3.6.6. Penalized Breaks

- 3.6.6.1. In the event that a pilot interrupts the sequence after a figure is flown incorrectly, with completion on the wrong heading or in the wrong attitude, the break will always be penalized. Following a penalized break, a subsequent interruption may be considered a permitted break according to paragraph [3.6.5](#). if it is taken after a correctly-flown figure.
- 3.6.6.2. After a penalized interruption, there is no obligation for the pilot to resume the sequence in a direction determined by the flight before the interruption.

3.7. Conduct of Competition Flights

- 3.7.1.1. Competition flights will be made separately in the sequence determined according to rule [3.2](#). No competitor may commence a competition program before completing the previous one.
- 3.7.1.2. The official wind for program 1, 2, 3 and 4 shall be determined by the jury. No flight shall be required to commence within a period of 30 minutes after determination or change of the official wind is published.
- a) The jury shall determine the official wind direction taking into account the reported actual wind direction and speed at 300m and 600 m and the forecast trend. The official wind direction at the start of each day, and each flight program, shall be aligned with the performance zone axis closest to the above assessment.
- b) The jury shall provide the official wind direction to the chief judge and contest director before the start of each contest day and any time it is determined that the official wind direction must be changed.
- 3.7.1.3. The decision with regard to the official wind direction – always aligned to one of the performance zone axes – shall take into account the predominant direction of the actual prevailing wind. The official wind direction at the start of each day, and each flight program, shall be closest to the actual prevailing wind.
- 3.7.1.4. There will be, if required, a 30 minute break after every two hours of competition flying for the board of judges to have a rest.
- 3.7.1.5. The organizer of championships must establish an efficient radio communication between the contest officials (contest director, chief judge and flight director) and supervise the running of the contest and the contest rules.

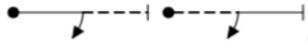
3.8. Height Limitations

- 3.8.1.1. The following height limitations have been determined for all contest flights:

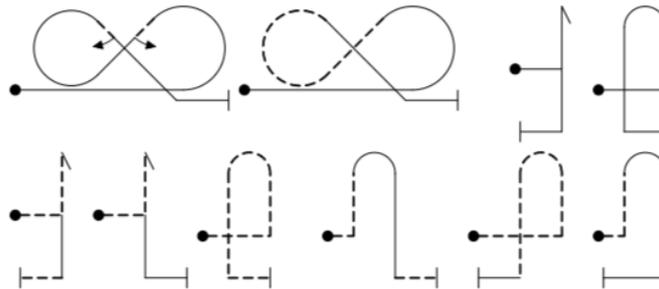
Category	Upper	Lower	Disqualification
Club	1200 m	500 m	300 m
Sports	1200 m	500 m	300 m
Intermediate	1200 m	300 m	200 m
Advanced	1100 m	200 m	100 m
Unlimited	1000 m	100 m	50 m

3.9. Safety and Practice Maneuvers

- 3.9.1.1. Before the wing-rocking at the start of each competition flight it is recommended that all pilots perform safety maneuvers as follows. These figures are optional but, if flown, may only be flown once, in any order unless a figure starting inverted is used (see below), and continuously on the same axis. They must be flown inside the performance zone:



and one (program's 2 to 5), or up to three (program 1), of the following:



When flown, a figure above from family 5 or 8 that starts inverted shall be inserted after the first half roll. In that case, if the figure is one that finishes positive, the second half roll is not flown.

- 3.9.1.2. Prior to the actual performance of program 1, in addition to safety maneuvers according to [3.9.1.1](#), competitors will be permitted to fly, once, practice figures from their program 1 sequence, starting from figure one (1) of their sequence, consecutively up to the first five (5) figures.
- 3.9.1.3. Violations of safety and practice maneuvers will be penalized in accordance with paragraph [4.3.1](#) and [4.3.2](#).
- ## 3.10. Duration of Flight and Signaling Start and Finish
- ### 3.10.1. Time Limits
- 3.10.1.1. Programs will not be timed.
- ### 3.10.2. Signalling
- 3.10.2.1. A competitor must signal the start and finish of each program, and any interruption, by distinctly rocking the wing three (3) times by more than 45 degrees.
- 3.10.2.2. The aircraft may start and/or finish the wing rocks either inside or outside the aerobatic zone. They may be in normal or inverted flight, on any flight path angle. The flight path angle may change between the wing rocks. The return of wings to 'level' therefore does not necessarily refer to the aircraft being 'in level flight'.
- 3.10.2.3. If the first figure in a program or the first figure after an interruption begins in inverted flight, the authorized starting procedure is either:
- A half roll prior to the first wing rock, and all wing rocks performed in inverted flight.
 - A vertical line established from flight in a direction parallel to the starting axis, with the exit in inverted flight; in this case the wing rocks may be performed partly or totally on the vertical line, or after leveling-off in inverted flight.
- 3.10.2.4. A horizontal flight path is required at the start of the first figure. This horizontal may be started inside the aerobatic zone or, provided that it is clearly seen to continue inside, it may be started outside the zone.
- 3.10.2.5. Violations of signaling procedures, determined by simple majority of judges, will be penalized in accordance with paragraph [4.3.1](#).
- 3.10.2.6. Class "C" and "S"
Signaling the start and end of a program by means of three wing-dips is not required.

3.11. Danger of collision

- 3.11.1.1. In case of danger of collision with a bird or conflicting air traffic:
- If the pilot has to interrupt the competition flight and land, the case should be treated in the same manner as if a mechanical defect (paragraph [3.12](#)) had taken place.

3.12. Mechanical Issues

3.12.1. Defects on the Ground

- 3.12.1.1. In the event of a competing aircraft becoming unserviceable before the start of a flight, the jury may permit the competitor to use another aircraft or the same aircraft following the removal of the defect.
- 3.12.1.2. In the event that a test flight is required and the competitor does not allow a non-competing pilot to fly his aircraft for test purposes, a special authorization will be given to the competitor to fly this test flight under the following conditions:
- That the flight will consist of a maximum of three aerobatic figures;
 - That these figures will be approved by the jury;
 - If the competitor violates these conditions he will be disqualified.

3.12.2. Defects in Flight

- 3.12.2.1. When a competitor has a mechanical defect in flight and decides to land, he/she will be required to taxi (if able) to a designated secure area that is protected from spectators and other competitors. This area will be off limits to everyone except the competitor and the jury. The competitor will be required to remain in his aircraft until the arrival of a member of the jury who will release him and subsequently permit the aircraft to be worked on and inspected.
- 3.12.2.2. In the event of a competitor breaking off his or her competition flight in case of technical damage which is beyond the pilot's control after take-off, he or she may be allowed to repeat the flight provided that evidence of the damage can be furnished to the jury within two hours after landing. For finding the damage only, the following persons will be permitted to work on the aircraft: the competitor and the mechanic named by the jury. When the cause of the damage has been found, the damage will be repaired by the mechanic of the aircraft and other experts.
- 3.12.2.3. Any damage will be counted as such provided it is a break or deformation found on the aircraft or engine or their component parts without use of any special device except a magnifying glass.
- 3.12.2.4. The following defects will not be counted:
- incorrect adjustment;
 - technical trouble caused by dirt if attributed to negligence of the competitor. Note: if it can be ascertained that contaminated fuel or oil was supplied by the organizer, the penalizing rule does not apply;
 - insufficient or missing safety devices causing a change of settings during the flight.
- 3.12.2.5. In cases (a) to (c) above (with the exception of the Note in (b)), the competitor will not be permitted to repeat his or her flight.
- 3.12.2.6. The jury must, not later than five hours from the landing of the competitor concerned, decide whether or not a repetition flight will be approved. In case of doubt, the jury shall decide in favor of the competitor.
- 3.12.2.7. In order to avoid any delay in the progress of the contest, the flight will be repeated at the first available opportunity closest to the original flight order even if this is prior to the decision of the jury.
- 3.12.2.8. The sequence of repetition flights is determined by the sequence of interruptions of competition flights.
- 3.12.2.9. A competitor making a repetition flight must re-fly the entire program. Judging and scoring will be continued from the figure during which the technical problem occurred in the interrupted program.

3.13. Change of Aircraft by a Competitor

- 3.13.1.1. A contest aircraft may, with the permission of the jury, be replaced at any time by another contest aircraft.
- 3.13.1.2. If due to a technical reason a pilot has to fly a different airplane, he/she shall be allowed to make the following figures in addition to normal safety maneuvers, in order to become accustomed to the substitute:

Category	Allowed figures
Club	2.2.1.1. and 9.1.3.4.
Sports	5.2.1.1. and 9.4.3.4.
Intermediate	9.4.3.4, 9.9.3.4 and 5.2.1.1.
Advanced	9.4.3.4, 9.9.3.4 and 5.2.1.1. + 9.1.1.2.
Unlimited	9.4.3.4, 9.9.3.4, 9.10.3.4 (bracketed by 9.1.3.2.) and 5.2.1.1. + 9.1.1.4.

3.14. Protests

- 3.14.1.1. Protests will be accepted from individual competitors only. All protests must be submitted to the jury in writing, either directly or through the contest director, with a deposit, not later than two hours after the occurrence, decision or publication of results which causes the protest to be made. Every protest must refer to the rule or rules to which it relates. The amount of the deposit is € 50,-.
- 3.14.1.2. The deposit will be returned if the protest is upheld. The decision of the jury is final.

3.15. Procedure in the Event of a Serious Accident or Casualty

3.15.1. Overview of Procedures

- 3.15.1.1. In the event of a serious accident or casualty at a VINK contest or event, the host airfield's emergency response plan will be activated.
- 3.15.1.2. VINK officials will support the host airfield staff to provide an appropriate response to the incident.
- 3.15.1.3. The procedures invoked to deal with such aviation related incidents are based on the principles described in the FAI Guidelines document "In the event of a casualty or a serious accident at FAI Air Sports".

3.15.2. Planning Meeting with Host Airfield

- 3.15.2.1. The CD must liaise with the host airfield management team (Airfield Manager, CFI or other appropriate person) before the event to discuss arrangements for the competition, to include:
- Flight Operating Procedures,
 - Emergency Response Procedures (including Major Incident Plans),
 - Location and procedures for use of the aerobatic box. The CD and airfield management team should work together to agree an appropriate location for the aerobatic box, giving consideration to keeping aerobatic contest flights clear of occupied buildings, significant public areas or facilities, local villages and noise sensitive areas. The VINK's Risk Analysis and Safety Assessment document provides guidance on these issues,
 - Designation of an Incident Control Centre. A room or office should be designated for use as the Incident Control Centre. The CD and the airfield management would use this room as the central point from which to co-ordinate the response to the incident. Ideally, this should be close to ATC so that use can be made of air band radio facilities.



3.15.3. VINK Incident Response Team

3.15.3.1. A response to a serious accident or casualty will be co-ordinated by the CD and the Airfield Manager or other appropriate person.

3.15.3.2.

3.15.3.3. The CD may appoint other VINK volunteers to help with the management of the incident response as he feels appropriate. These roles may include:

- a) Deputy CD assigned to be the CD's representative at the incident site and elsewhere on the airfield as and when required,
- b) Public relations officer assigned to deal with press and media enquiries.

3.15.4. Immediate Response to an Incident

3.15.4.1. Participants should report the occurrence of an incident to a contest official, to the member of any local staff responsible for managing air traffic, or to another member of the airfield staff, whichever is quicker, who must immediately contact the local air traffic management personnel to inform them of the incident.

3.15.4.2. The local air traffic management personnel will call 112 to alert the emergency services (fire, ambulance, and police) and activate the airfield's emergency response and major incident plan as appropriate.

3.15.4.3. Further management of the situation will be co-ordinated by the airfield staff, supported by the VINK's CD.

3.15.5. Role of Participants

3.15.5.1. Once the alarm has been raised, if a victim involved in the incident needs help and the rescue team has not arrived on scene, participants must consider the danger they and other participants may be exposed to if a rescue is attempted. The professional incident response teams will have the training and equipment needed to respond to the incident appropriately and in most cases it is best to let the professional team handle the situation.

3.15.5.2. A participant must not attempt to move a victim unless asked to do so by the rescue team, under their supervision, except if the victim is in imminent mortal danger and the rescue team has not arrived on scene. However, participants must be aware that any intervention in these circumstances could place both the victim and the participant in grave danger.

3.15.5.3. In circumstances where it has been established that no further assistance can be given to the pilot (or any other people involved in the incident) and that a fatal incident has occurred, the accident site must be secured and measures implemented to ensure that the area remains undisturbed until the Police and Air Accident Investigators arrive on scene. An effort should be made to shield the accident site from view if possible.

3.15.5.4. Witnesses to the accident should be requested by the CD or his deputy to remain on-site until the police have said they can leave.

3.15.5.5. Participants should not watch video footage of the incident until given permission to do so by the police or OvV („Onderzoeksraad voor Veiligheid”), but should hand any photographs or video footage of the incident to the CD.

3.15.5.6. When the contest participants next meet (morning briefing, or a special briefing), the CD should inform them of the incident's basic facts, of the action taken and decisions made regarding the future continuation of the contest.

3.15.5.7. There will almost certainly be media and public enquiries or presence at the event site and/or the site of any major accident (which may be off the event site). Opinions, assumptions, and the names of individuals involved should not be passed to the media. A properly constructed announcement will be released to the public and media by the CD on behalf of VINK

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4. EVALUATION OF COMPETITION FLIGHTS

4.1. Evaluation of the Performance

4.1.1. Chief Judge

- 4.1.1.1. The chief judge's primary concern should be the accurate and fair judging of the competition flights, including the monitoring of flights for hard zero marks and penalties. He should place his expertise at the disposal of the board of judges, and coordinate and guide their work.
- 4.1.1.2. The chief judge oversees administrative matters (correctness of paperwork, recording of penalties, etc.) but must be provided with two or more chief judge assistants under his/her supervision who will perform at least the following tasks along with other duties as requested:
- Calling the maneuvers and recording the notes of the chief judge, to whatever extent he requires;
 - Processing and expediting the flow of paperwork;
 - Handling all other radio communications. One of his assistants should assist in monitoring the zero marks and penalties awarded by the judges after each flight.
- 4.1.1.3. It is essential that the chief judge follows each flight, with emphasis on recording hard zeros, interruptions, insertions and height penalties. Such infringements and comments should be recorded, as an aide-memoire, on a score sheet which should be retained for reference prior to the judges' scoresheets being submitted to the workstation. The official recording of penalties will be on the appropriate section of the score sheet reserved for the use of the chief judge and entered prior to submission to the scoring system.
- 4.1.1.4. The chief judge will hold routine evaluation meetings with the judges during the contest. He should ensure that rules in this chapter are understood and operate smoothly, and establish a good working relationship between teams of judges assistants and other helpers.
- 4.1.1.5. The chief judge is responsible for ensuring that there is enough time between flights for the judging to be unhurried: he/she should control (by radio) the flow from one contestant to the next.
- 4.1.1.6. The following recordings and corresponding penalty points will be carried out under the responsibility and control of the chief judge:
- Program interruptions;
 - Insertions;
 - Infringements of the lower and upper height limits ([3.8](#));
 - Infringement of proper signaling in program 5 (Unlimited).
- 4.1.1.7. At the end of each flight, the chief judge should ascertain whether any of the judges has recorded a hard zero (HZ) mark, or any of the penalties mentioned in [4.1.1.6](#) above. This will be done by perusal of the score sheets collected from the judges, prior to entry into the scoring system.
- 4.1.1.8. When all form A's (respectively form R's or L's) have been submitted to the chief judge for a flight and a difference of opinion occurs with regards to a hard zero (HZ) mark, insertion penalty or interruption penalty:
- The chief judge shall call for a discussion in the judging area by the judges;
 - Such discussions shall not interfere with the subsequent flights;
 - The official video may be used in these discussions to help determine matters of fact, but not of perception;
 - A judge may request a viewing of the video during a discussion if he/she deems it necessary. This request will always be honored;
 - All form A's (respectively form R's or L's) shall be retained by the chief judge until the final decision is made.



4.1.2. Judges

- 4.1.2.1. VINK judges and assistants, on being selected for duty on an judging panel, must at all times act with true impartiality and treat all competitors on an equitable basis including during breaks in the competition.
- a) Any indication that a judge or assistant is acting contrary to the required manner and/or is seen to be colluding with a third party in matters that could affect their impartiality may lead to expulsion from the judging line, subject to review and confirmation of such a directive by the jury.
- 4.1.2.2. Each program of a championship will be marked by the judges using a standardized system: see FAI Sporting Code, Section 6 Part 1 - Powered Aircraft Appendix B and also [4.1.7](#) and [4.4](#) below.
- 4.1.2.3. All judges should study copies of all contestant's program's, provided by the organizer, before flying of the program is started.
- 4.1.2.4. A judge may only reconsider his marks so long as his score sheet is still in his possession or if asked to do so at the request of the chief judge. The judge himself must sign off any changes on the score sheet. Once entered into the scoring system, the scoring sheet comes under the jurisdiction of the jury.
- 4.1.2.5. It is strongly recommended that the judges record remarks on the score sheets.
- 4.1.2.6. Where the majority decision of the panel of judges is required, in a case of disagreement about the penalization of the flight of a competitor, the chief judge shall have a casting vote in the event of a tie.
- 4.1.2.7. Program 5 is judged on a comparative basis, with each judge retaining scores until the end of the program. For that purpose each judge shall set its own average mark standard, taking into account that near maximum or minimum scores on the first flights would restrict future comparisons for superior or inferior flights.

4.1.3. Recording of Interruptions, Insertions, Height Infringements and Wing-Rocking

- 4.1.3.1. Each judge must record program interruptions, insertions, as well as infringements of the lower and upper height limits (unless a precision height measuring device is available), on their score sheet. Where there are no such infringements the words "No Penalties" or "NP" should be entered in the remarks box, thus giving a positive indication in either instance. The chief judge or his/her assistant will then enter the appropriate penalty based on simple majority (except for disqualification, see [4.1.3.2](#) below). In case of a 50/50 split, the chief judge may call a conference or cast his vote as appropriate.
- 4.1.3.2. Disqualification (for the current program) for infringements of the disqualification height limit ([3.8](#)), by which air safety is endangered, shall be decided by a two-third majority vote of the board of judges, even when there is a precision height measuring device available.
- 4.1.3.3. Further entries on the marking sheet concerning positioning will be made on the basis of the positioning sheets after evaluation in the evaluation office.

4.1.4. Marks for Figures

- 4.1.4.1. The judges will independently assess the quality of each figure and its components as performed in the sequences for program's 1, 2, 3 and 4, marking with numbers from 0 to 10, in intervals of 0.5; for program 5 the assessment will be in accordance with [4.1.6](#). A hard zero (HZ) mark will be awarded if the figure is incorrect or missing, in accordance with section [4.4](#).
- 4.1.4.2. When marking the quality of the performance of individual figures, the judges have to consider the following general principles:
- a) For program's 1, 2, 3 and 4, according of the figure flown and direction of flight, with the pre-stated figure in the original sequence;
- b) The distinctly recognizable start and finish of each figure with a horizontal line;
- c) That in judging a figure which comprises a combination of maneuvers, the marking criteria of its various components continue to apply, but the combined maneuvers are to be taken as a unit;
- d) Marking criteria set out in FAI Sporting Code, Section 6 Part 1 - Powered Aircraft Appendix B;
- e) That the length of lines and the size of radii caused by the flying characteristics of an aircraft are not to be taken into account in the marking;
- f) That inverted figures are judged by the same criteria as upright figures.
- 4.1.4.3. Once horizontal flight path is established at the end of a figure in a sequence, the beginning of the next figure is considered to have occurred. This rule is not to be interpreted to mean that a competitor will incur penalty points for performance zone infringements (see [4.3.4](#)) if the next figure is actually performed inside the 50 m boundary of the performance zone



- 4.1.4.4. If a judge misses seeing a figure, or any part of a figure such that a grade cannot be given with full confidence, the judge will give a mark of "Average" or "A" to that figure.
- a) When determining the Ranking Index (RI) for each judge, "A" marks will be replaced by a numeric average of the other judges (non-"A") marks (with HZ's and PZ's evaluated as numeric zeros), rounded to the nearest half-point. If the numeric average decimal part is exactly 0.25 or 0.75, the numeric average will be rounded upwards.

4.1.5. Marking of Flight Positioning and Symmetry

- 4.1.5.1. If an electronic, radar or radio-controlled tracking instrument is operated, the observance of the performance zone and the positions of the individual figures are recorded.
- 4.1.5.2. Positioning refers to the 3D placement of each figure relative to the judges.
- 4.1.5.3. The positioning mark will be given by the board of judges.
- 4.1.5.4. Depending on the aircraft's height and on the nature of the figure being flown, there is an optimum range from the judges for the placement of each figure. At this range, the geometrical errors in the figure, and the precise nature of the figure, are both clear and easy to assess.
- 4.1.5.5. The highest marks will be given if the central point of a competition flight is above the secondary axis, and if each figure is optimally placed inside the performance zone. The judge's final decision on a grade for positioning must take into account deductions for asymmetry of the sequence, and non-optimal placement of individual figures.
- 4.1.5.6. The K factor accorded to positioning marks will be as follows:

Category	Positioning K
Unlimited	40
Advanced	30
Intermediate	30
Sports	15
Club	10

- 4.1.5.7. A column headed "Pos" on the form A (respectively R, L) marks sheet shall be used to record by exception the positions of figures that are not optimally placed, as they are flown.

- 4.1.5.8. When dictating the mark for each figure to the scribe, the judge shall where appropriate add a comment in the “Pos” column regarding the placement of the figure if this is considered to have been not optimum. In arriving at this comment the shape and size of the basic figure and the location of any manoeuvres within it shall be assessed against the ‘optimum’ placement of the whole figure in the context of the positional scope of the sequence. Where the judge assesses that figure placement is sufficiently sub-optimal to be recorded then the following annotations (or their local / national equivalent) shall be used:

Figure placement		“Pos” annotation
Somewhat	Left of the optimum position	“L”
	Right of the optimum position	“R”
	Too near to the judge	“N”
	Too far from the judge	“F”
Considerably	Left of the optimum position	“LL”
	Right of the optimum position	“RR”
	Too near to the judge	“NN”
	Too far from the judge	“FF”

- 4.1.5.9. At the end of the sequence the annotations in the “Pos” column shall be used by each judge to determine a sequence positioning downgrade based on these recorded observations. Each single letter is taken as equivalent to a half-mark and each double letter equivalent to a full mark downgrade. For example, the figure “Pos” annotations L, R, N, FF, LL and R would combine as a downgrade of 4.0 marks.

4.1.6. Marking of Program 5 (Criteria)

- 4.1.6.1. Program 5 (Unlimited Final Freestyle Program) will be marked under 3 headings as in the table below.

Criteria	K factor
Technical merit	160
Artistic impression	160
Positioning	80

Each of these shall contain sub-headings as detailed in FAI Sporting Code, Section 6 Part 1 - Powered Aircraft Appendix B.11.

4.1.7. Calculation of Scores

The calculation of scores for a competitor's program will be as follows:

- 4.1.7.1. For each figure, the raw score is calculated by multiplying the coefficient (K) of the figure by the mark given by the judge.
- 4.1.7.2. The marks given by a judge are processed according to the Sporting Code document “International Aerobatic Events: Statistical Method for Processing Scores”, with the final scores being determined for a program as a whole. The CIVA-approved software program must be used and obtained from the President of CIVA.
- 4.1.7.3. It shall be a duty of the organizer to arrange for the publication of the competition results. The marking sheets must be made available to the competitors and contest officials for information and/or checking before the start of the subsequent program.
- 4.1.7.4. A copy of the files generated by the CIVA-approved computer scoring system must be available to any competitor upon request. The media used for that copy will be supplied by the requester and has to be compatible with the computer being used by the contest organizer. A complete copy of all the files must be sent to the board of VINK.



4.2. Boundary Judging

- 4.2.1.1. The recording of infringements of the performance zone defined in [3.3](#). may be carried out only with a VINK approved electronic tracking system.
- 4.2.1.2. If a VINK approved electronic tracking system can be used, boundary judging is mandatory at the Dutch Open National Aerobatic Championship, except in the Final Freestyle Program (Unlimited) for which boundary judging is not applicable.
- 4.2.1.3. Boundary judging, although recommended, is not mandatory for National Aerobatic Championships.
- 4.2.1.4. If an electronic tracking system is used, the position of the aircraft will be tracked by the instrument and performance zone boundary infringements (including the 50 m buffer zone) recorded. A member of the jury or a neutral person assigned by the jury must be present at the recording station to monitor the operation of the system.
- 4.2.1.5. Competitors are not allowed to approach the boundary judging position(s) closer than 20 m and in any case are not allowed to communicate with the boundary judging officials.
- 4.2.1.6. A record of boundary infringements will be kept and will be made available to competitors.

4.3. Penalties Deductible from Total (Averaged) Scores

4.3.1. Violation of safety Maneuvers

- 4.3.1.1. A penalty of 30 points (all categories) will be given for each and every figure other than the prescribed maneuvers set out in rule [3.9](#). or the program figures.

4.3.2. Violations of Signaling Procedures

- 4.3.2.1. A penalty of 30 points (Unlimited, Advanced and Intermediate) will be given in case of violation of signaling procedures set out in rule [3.10.2](#).

4.3.3. Infringement of Height Limits

4.3.3.1. Unlimited

- a) For every obvious and visually recognized infringement of the lower height limit during the performance of any program, the competitor will be given 250 penalty points; an additional 250 penalty points will be given for each figure flown completely below the lower height limit; for an infringement of the upper height limit 50 penalty points are given. A competitor flying lower than 50 meters will be disqualified (from the current program) for causing a dangerous situation.

4.3.3.2. Advanced

- a) For every obvious and visually recognized infringement of the lower height limit during the performance of any program, the competitor will be given 200 penalty points; an additional 200 penalty points will be given for each figure flown completely below the lower height limit. For an infringement of the upper height limit, 30 penalty points will be given. A competitor flying lower than 100 meters will be disqualified (from the current program) for causing a dangerous situation.

4.3.3.3. Intermediate

- a) For every obvious and visually recognized infringement of the lower height limit during the performance of any program, the competitor will be given 200 penalty points; an additional 200 penalty points will be given for each figure flown completely below the lower height limit. For an infringement of the upper height limit, 30 penalty points will be given. A competitor flying lower than 200 meters will be disqualified (from the current program) for causing a dangerous situation.

4.3.3.4. Sports

- a) For every obvious and visually recognized infringement of the lower height limit during the performance of any program, the competitor will be given 150 penalty points; an additional 150 penalty points will be given for each figure flown completely below the lower height limit. For an infringement of the upper height limit, no penalty points will be given. A competitor flying lower than 300 meters will be disqualified (from the current program) for causing a dangerous situation.

4.3.3.5. Club

- a) For every obvious and visually recognized infringement of the lower height limit during the performance of any program, the competitor will be given 100 penalty points; an additional 100 penalty points will be given for each figure flown completely below the lower height limit. For an infringement of the upper height limit, no penalty points will be given. A competitor flying lower than 300 meters will be disqualified (from the current program) for causing a dangerous situation.

4.3.4. Infringements of the Performance Zone

4.3.4.1. When an electronic tracking system is operated, an infringement is considered to have occurred if the position of the aircraft is indicated by the system as crossing the limits defined in rule [4.3.4.2](#). even if this occurs more than once in a single figure.

4.3.4.2. For each infringement of the performance zone in programs 1, 2, 3 and 4 by more than 50 meters in the direction of the main axis and/or the secondary axis a pilot will be given penalty points in accordance with the table below.

Category	Points
Unlimited	30
Advanced	20
Intermediate	20
Sports	0
Club	0

4.3.4.3. Thereafter, for every figure started beyond 50 meters outside the performance zone, further penalty points will be given, in accordance with the same table.

4.3.5. Flight Regulations and Dangerous Flying

4.3.5.1. Competitors found guilty of violating flight regulations and/or causing a dangerous situation will, on the recommendation of the jury, be disqualified by the contest director. The chief judge may, with the agreement of two-thirds of the board of judges, exclude a pilot who is not flying safely or could cause an unsafe situation. This would apply from take-off to touchdown (see also [1.2.8.8](#)).

4.3.6. Interruption of a Program or Addition of Figures

4.3.6.1. A competitor will be given penalty points, in accordance with the appropriate tariff, if he or she interrupts his or her program by rocking the wings three (3) times one after the other, in accordance with [3.10.2](#).

Category	Interruption	Addition
Unlimited	150	150
Advanced	100	100
Intermediate	50	50
Sports	0	20
Club	0	10

4.3.6.2. Following a program interruption, the competitor must restart his or her program with the figure:

- a) Immediately preceding the point of interruption;
- b) In which the interruption occurred;
- c) Immediately following the point of interruption

4.3.6.3. In no case shall a figure that has already received a score (even if zero) prior to a program interruption as in [4.3.6.1](#) be rescored.

- 4.3.6.4. Should the competitor restart his or her program at any point other than provided for in [4.3.6.2](#), the competitor will be given additional penalty points in accordance with the appropriate tariff.
- 4.3.6.5. The addition of a figure to a sequence will also result in penalty points, but all subsequent figures correctly flown will be marked. For example, if the additional figure flown is a repeat of the previous figure, the score for the original figure must be retained, even if zero. Under no circumstances should a competitor be allowed to gain an advantage due to this additional figure.

4.4. Penalties & Devaluations applicable to Figures in Programs 1, 2, 3 and 4

It is assumed by a judge that a contestant is going to fly a perfect figure, therefore he/she starts with the grade of 10 and proceeds to downgrade this mark (a) by fixed values as prescribed herein, and (b) by further values in conformity with the Judging Criteria in FAI Sporting Code, Section 6 Part 1 - Powered Aircraft Appendix B.

4.4.1. Downgrades

- 4.4.1.1. The absence of a distinct horizontal start or finish to a figure will reduce the mark by 1 point in each case for each figure affected.
- 4.4.1.2. At the initiation or completion of every figure, each deviation from a wings level, horizontal flight path and from a heading parallel to the relevant box axis, in accordance with paragraph B.6.1.1 of the FAI Sporting Code, Section 6 Part 1 - Powered Aircraft Appendix B, will attract a reduction of 0.5 point per 2.5° of deviation, 1 point per 5° of deviation.
- 4.4.1.3. As there is no "free" space between figures ([4.1.4.3](#)) any reduction applied in accordance with [4.4.1.2](#) must also apply as an error at the start of the subsequent figure.
- 4.4.1.4. All deviations from the correct geometry (plane of flight, direction of flight, angle of bank), and for deviations from the proper flight path or the proper attitude (as appropriate), the mark will be reduced by 1 point per 5° deviation.
- 4.4.1.5. Over-rotating a roll and rolling the wings back again must be penalized by 1 point per 5° of over-rotation, even if the correct geometry is resumed afterwards, and no matter how quickly the correction is made. The same provisions apply when, at the end of a loop or part-loop, the aircraft's nose is pitched beyond the desired line and then brought back again.
- 4.4.1.6. If within a figure two or more lines have to be of the same length, the basis for judging is the first line flown. Any observed variation must be penalized by reducing the marks in accordance with paragraphs B.8.1.6 and B.8.1.7 of the FAI Sporting Code, Section 6 Part 1 - Powered Aircraft Appendix B.
- 4.4.1.7. Slow rolls flown in combination with a turn (family 2) or loop (family 7.4.1 – 7.4.2) must be smoothly continuous: i.e. there must not be any change in the rate of roll from beginning to end.
- 4.4.1.8. Marking criteria for combinations of rolls with turns and loops will include the even integration of the rolls within the figure. Specific downgrades for rolling turns are noted in paragraph B.9.3 of the FAI Sporting Code, Section 6 Part 1 - Powered Aircraft Appendix B, while specific downgrades for turns in loops are noted in paragraph B.9.10.3 of the FAI Sporting Code, Section 6 Part 1 - Powered Aircraft Appendix B.
- 4.4.1.9. If the total of downgrades in this section leads to a value lower than the score of 0.5, a numerical zero (0.0) will be given to the figure. The judge should summarize the reasons for applying the numerical zero.

4.4.2. Perception Zero

- 4.4.2.1. A grade of "Perception Zero" (PZ) should be given if the judge considers that the figure is incorrectly flown in respect of a criterion that is a matter of subjective perception, rather than clearly demonstrable fact. For example, if the judge considers that a flick roll or spin never started proper auto-rotation, that a tail slide did not move backwards by the required amount or that a rolling turn included a flick roll.
- 4.4.2.2. The judge must state the reason for applying the PZ.
- 4.4.2.3. The chief judge should check that PZ's are applied only to maneuvers where a perception error has been seen, and that a plausible reason has been given. The chief judge has no other input regarding the presence of PZ's; they are subjective decisions made by individual judges and there is no requirement to review or confirm them.

4.4.3. Hard Zero

- 4.4.3.1. A grade of "Hard Zero" (HZ) should be given if the judge considers that the figure is incorrectly flown in respect of a geometrical error, as listed below, that is clearly verifiable as a matter of fact. A grade of "HZ" will be given to a figure if:
- Any figure is flown which does not conform to the drawing held by the judges for marking purposes (form 'B', 'C', 'L' or 'R'). Note - when a figure is added to a sequence rule [4.3.6.5](#) applies;
 - When rolls are superimposed on a turn or loop (rule [4.4.1.8](#)), the roll is finished but 90° or more of the turn or loop still remains to be flown, or the turn or loop is finished but 90° or more of the roll remains to be flown;
 - Any deviation from the prescribed direction (rules [4.4.1.2](#) and [4.4.1.3](#)) reaches 90°;
 - Any other single deviation in geometry/flight path/attitude/rotation (rule [4.4.1](#)) reaches 90°;
 - The pre-stated figure or any part of it is omitted;
 - Any part of the figure was not visible as it was flown in or behind cloud. If the figure was visible to a majority of judges, then the chief judge should instruct unsighted judges to revise their mark from "HZ" to "A".
- 4.4.3.2. When awarding a hard zero, judges must write down reason and are not to give a 'reserve' mark.
- 4.4.3.3. If figures subsequent to the hard zero mark are correct and are flown in the correct direction, they shall be marked in the normal way.
- 4.4.3.4. During a repetition flight (paragraphs [3.6.4.3.e](#) or [3.12.2.9](#)) the figures before the break must all be flown correctly. If a competitor omits or flies such a figure incorrectly, so as to gain an unfair advantage, the grade awarded for that figure during the first flight will be reduced to a "HZ".

4.4.4. Alignment on Hard Zero

- 4.4.4.1. The awarding of confirmed hard zero marks is determined by the chief judge. When all form A's (respectively form R's or L's) have been submitted to the chief judge for a flight and difficulties occur in interpreting the correct application of the "HZ" mark, the procedure specified in [4.1.1.8](#) will be used.
- 4.4.4.2. Case of hard zeros Given by the majority of judges:
- The score sheets go to the scorer unchanged, the chief judge having checked the confirmed hard zero (CHZ) box on the score sheet, unless a conference to confirm the facts is demanded by any judge(s). The computer system changes the minority scores to HZ and determines the judges' HZI points as per the Sporting Code document "International Aerobatic Events: Statistical Method for Processing Scores" para.8.4.
- 4.4.4.3. Case of hard zeros given by 50% or less of the judges:
- The chief judge first determines by means of conferencing whether the hard zero is correct or not. If correct, the chief judge will check the "CHZ" box on the score sheet; if not he will leave it blank. The judges must not change their score sheets as a result of the discussion. The score sheets will then go to the scoring office and the computer system will then change the incorrect grades and determine judges' HZI points as per the Sporting Code document "International Aerobatic Events: Statistical Method for Processing Scores" para.8.4.
- 4.4.4.4. Case of hard zeros referred to or determined by the jury:
- The chief judge may on occasions, where there is a mixture of scores and hard zeros for a figure, not be able to determine the validity of the hard zero score(s), due to uncertainty in the regulations (e.g. paperwork errors). In such instances the chief judge shall tick the CHZ box and then refer the matter to the jury for clarification and a decision.
 - Where the jury determines the hard zero grade is correct, those judges who had given numerical grades, will have their grades changed to hard zero, without prejudice to their ranking index.
 - Where the jury determines the hard zero grade is incorrect, the hard zero confirmation will be reversed and those judges who have given hard zeros will have their grades changed to an average, without prejudice to their ranking index.
- 4.4.4.5. When a judge's hard zero vote is over-ruled, upward correction of a hard zero will be to a fitted value determined by the scoring software.

4.4.5. Errors in Recording Hard and Perception Zeros

- 4.4.5.1. The chief judge will examine the reasons given by the scoring judges for the award of hard zeros and perception zeros. If a scoring judge has made a mistake and quoted a reason not applicable to the recorded mark, e.g. "HZ: No slide" where the figure is a tail slide, the chief judge will instruct the scoring judge to change his mark to PZ. If however the judge has recorded for a tail slide "PZ: Fell the wrong way" then the chief judge will instruct the scoring judge to change his mark to HZ. In this way true zeros can all be brought to a common solution, providing correction to the judge and clarity for the pilot.

4.4.6. Mix of Zeros

- 4.4.6.1. The fair play system computer software program will handle a mix of hard zeros, perception zeros or "A" grades in accordance with paragraph 4.4.6.4. In order for this to function correctly, the chief judge, if necessary after a conference as described in paragraph 4.4.4, must fill the confirmed hard zero (CHZ) field on the judging sheets if a hard zero was in fact flown. If review shows the figure to have been correct, the "CHZ" box must be left open.
- 4.4.6.2. If during this process the chief judge establishes that there is a mix of hard and numerical zeros for the same error, i.e. it is only the extent of the error above 45 degrees that cannot be established, and these combined zeros are in the majority for this error, the chief judge shall instruct those judges with the numerical zeros to change their score sheets to hard zeros and sign the sheets accordingly. The chief judge will then fill the CHZ field. Consequently, no judge will in this instance have a point added to his hard zero anomaly count (see also the Sporting Code document "International Aerobatic Events: Statistical Method for Processing Scores").
- 4.4.6.3. Should a judge consider that a figure started behind the judges, the judge shall grade the figure regardless, but add the comment, "Behind" in the Remarks section of the form A (respectively form R or L). At the end of each flight, the chief judge shall determine by a simple majority (with the chief judge casting a vote as required), if the figure in question was started behind the judges. If the majority holds that the figure was started behind the judges, each judge shall change his/her mark to 'HZ' and all form A's (respectively form R's or L's) shall be countersigned by the chief judge. If the figure is deemed by the majority to have been flown in front of the judges, the original marks shall be handled as with any other figure.
- 4.4.6.4. When a mix of hard and perception zeros, numerical and/or "A" grades exists, the following resolution will take place in the computer scoring program:
- "A" grades will first be set to "Missing".
 - If the "CHZ" box has been filled, then all other grades will be changed to "HZ".
 - If the "CHZ" box is open then "HZ" grades and any "PZ" grades shown to be anomalous will be set to "Missing".

After normalization, the "Missing" grades will be replaced with fitted values determined by the computer.

4.5. Judging Administration

4.5.1. Paperwork

- 4.5.1.1. All paperwork supplied to the board of judges except that specifically prepared for use by the chief judge and the video operator should have all references to the pilots' identity removed.

4.5.2. Collection of Marking Sheets

- 4.5.2.1. Immediately after a competitor has completed a competition flight and the judges have finished their marking, the marking sheets will be collected for perusal at the chief judge's workstation. Once any required actions are taken (conference, penalties added, indexes checked etc.) the marking sheets will be forwarded for entry into the scoring system. The individual judges themselves must sign off any changes to their marking sheets.
- 4.5.2.2. In program 5 ("U" only), judges will keep all the marking sheets until all competitors have completed the program. Should the completion of all flights in program 5 be interrupted, all judges' marking sheets shall be collected and secured by the chief judge until flying resumes.
- 4.5.2.3. Once the marking sheets have left the chief judge's workstation, they come under the supervision and jurisdiction of the jury.



4.5.3. Publication of Results

- 4.5.3.1. The total results for each competitor in each of the competition flights shall be available to the competitors, in the agreed working language(s), prior to the start of the subsequent program. The current results of each program will be published on an information board to indicate the placing of the competitors. The final evaluation and placing will be found and announced after checking by the jury, not later than the following day.

4.5.4. Public Announcements

- 4.5.4.1. Prior to the take-off for and during the performance of a program, details concerning the competitor concerned may be published by any means (radio commentary, etc.).

4.5.5. Official Video Recording

- 4.5.5.1. If an official video recording is made of every single competition flight, the recording must be available to the jury to assist their decision on any protests regarding the evaluation of a competition flight. The recording shall not be available to competitors, except in conjunction with the jury's decisions on protests and with their agreement. After the completion of the championships, the recording may be released by the organizer for use in training.
- 4.5.5.2. The official recording shall also be available to the chief judge and the board of judges to assist their discussions on matters of fact.
- 4.5.5.3. The organizer must provide quality equipment with qualified operators to insure useful information is provided to the judges and jury for their decisions.

4.5.6. Confidentiality

- 4.5.6.1. The judges are advised to keep activities of the board of judges and of the jury strictly confidential.

4.5.7. Judges' Performance Evaluation

- 4.5.7.1. Judges evaluation by flight program will be conducted by the jury using the software program approved by CIVA (see the Sporting Code document "International Aerobatic Events: Statistical Method for Processing Scores", chapter 8). The chief judge will receive in print format a complete analysis of all judges from the jury after each program is completed.
- 4.5.7.2. Individual judging analysis for each judge will be made available to the judge at the conclusion of each program. The chief judge should make himself/herself available for discussion with individual judges to facilitate their review of this material.
- 4.5.7.3. The judging analysis of the whole contest including the chief judge's complete analysis of all judges will be made available after the competition has been completed.

4.5.8. Reprimand and Disqualification of Judges

- 4.5.8.1. The reprimands and/or the disqualification of judges by the jury shall be administered in compliance with the appropriate rules of this document.
- 4.5.8.2. The jury, in conjunction with the chief judge, shall have the authority to disqualify any judge from the championship after the completion of any program if that judge's ranking Index deteriorates significantly from those established in previous programs, or if it determines that the judge is continuously biased or not competent. This decision will be final and cannot be protested or appealed.
- 4.5.8.3. In case of a disqualification of a judge, the marking which was the reason for the disqualification will not be counted for the program in question. VINK will decide upon the further use of the disqualified judge on the recommendation of the jury.
- 4.5.8.4. On the basis of judging data, which have to be available promptly, it is the duty of the jury to monitor the performance of the judges.

4.5.9. Substitute Judge

- 4.5.9.1. If a substitute judge is appointed under, he/she shall only take his place on the board of judges at the start of the subsequent program, and the marks of the departed judge for the program he/she did not complete will be deleted.

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5. AWARDS

5.1. Champions

5.1.1. Dutch Open National Aerobatic Championship

- 5.1.1.1. The Dutch national competitor who gains the highest number of points in the most difficult class flown, will be awarded the title "Dutch Aerobatic Champion 2018".
- 5.1.1.2. The Dutch national competitor who gains the highest number of points in class "U" will be awarded the title "Dutch Winner in the Unlimited Class 2018" and receives the corresponding Trophy.
- 5.1.1.3. The Dutch national competitor who gains the highest number of points in class "A" will be awarded the title "Dutch Winner in the Advanced Class 2018" and receives the corresponding Trophy.
- 5.1.1.4. The Dutch national competitor who gains the highest number of points in class "I" will be awarded the title "Dutch Winner in the Intermediate Class 2018" and receives the corresponding Trophy.
- 5.1.1.5. The Dutch national competitor who gains the highest number of points in class "S" will be awarded the title "Dutch Winner in the Sports Class 2018" and receives the corresponding Trophy.
- 5.1.1.6. The Dutch national competitor who gains the highest number of points in class "C" will be awarded the title "Dutch Winner in the Club Class 2018" and receives the corresponding Trophy.
- 5.1.1.7. Should the top scoring pilot in any class be a foreign pilot, his/her position in rank order would be recognized but he/she would receive a special trophy.

5.1.2. Dutch National Aerobatic Championships

- 5.1.2.1. The organizers will establish which Titles and Trophies are to be awarded in the contest.

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